

### ***Remarks***

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-15 and 19-22 are pending in the application, with 1, 13, 19 and 22 being the independent claims. Claims 16-18 are cancelled without prejudice to or disclaimer of the subject matter therein. Claims 20-22 are added. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

### ***Telephonic Interview on August 17,2006***

Applicant appreciates the Examiner's courtesy extended during their telephone call on August 17, 2006. The cited references, *i.e.*, U.S. Patent No. 5,049,062 to Gellert ("Gellert '062 patent") and U.S. Patent No. 4,682,945 to Schad ("Schad '945 patent"), were discussed with reference to the biasing element according to embodiments of the present invention.

The apparatus of the Gellert '062 patent does not teach or suggest a biasing element to maintain sealing between the manifold and the seal, as recited in the pending claims. In the apparatus of the Gellert '062 patent, springs 106 bias nozzle 10 to seat *within gate 40* until, during operation, the melt pressure overcomes springs 106 to allow nozzle 10 to unseat from gate 40 to thereby allow melt to flow into mold cavity 42. Gellert '062 patent, col. 3, lines 56-68. As such, springs 106 of the Gellert apparatus do not maintain sealing between the manifold and the seal as claimed in embodiments of the present invention. For at least this reason, the Gellert '062 patent does not anticipate the present claims.

The apparatus of the Schad '945 patent, *inter alia*, does not teach or suggest a seal having a seal melt channel, as recited in the pending claims. With reference to FIGS. 2 and 3 of the Schad '945 patent, the Examiner identified support assembly 32 as a seal having a seal melt channel between the melt channels of the nozzle [item 58] and

the manifold [item 38]. Office Action, pp. 5 and 7. However, support assembly 32 is not a seal but is described as being comprised of relatively movable support assemblies, *i.e.*, an inner tubular element 54 and an outer cup-shaped element 55, wherein the “inner tubular element [54] is ... formed with a contiguous nozzle housing 58 in the usual and customary manner.” Schad ‘945 patent, col. 2, lines 44-46; col. 3, lines 1-9; FIGS. 1-3. In other words, “inner tubular member 54” is merely a nozzle collar or flange of nozzle 58, such that an upper end 56 of nozzle 58 seals against manifold 38. As there is no seal with a seal melt channel between the melt channels of nozzle [item 58] and manifold [item 38] of the apparatus of the Schad ‘945 patent, this reference does not anticipate the present claims. *See* Schad ‘945 patent, FIG. 2.

***Rejections under 35 U.S.C. § 112***

Claim 10 is rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The examiner states that claim 10 lacks antecedent basis for “said” nozzle. Applicant has amended claim 10 to correct this error and request that this rejection be withdrawn.

Applicant has also corrected an error identified in claim 6, wherein “bias element” was amended to read “biasing element.”

***Rejections under 35 U.S.C. § 102***

Claims 1-4, 6-10, 13-15, 18 and 19 are rejected under 35 U.S.C. § 102(b) as being anticipated by the Gellert ‘062 patent. Applicants have made minor amendments to independent claims 1, 13 and 19 to clarify the structure thereof that were not necessitated by the present rejections. Independent claim 18 has been canceled without disclaimer of or prejudice to the subject matter thereof.

As discussed above, the Examiner identified springs 106 of the apparatus of the Gellert ‘062 patent as a biasing element to maintain a sealing pressure between the manifold member and seal (claim 1), to provide sealing contact between the seal and manifold to maintain a sealed melt path between the manifold and nozzle melt channels

(claim 13), and that contacts both the nozzle head and seal to provide a sealing force between the seal and the manifold (claim 19) . Office Action, p. 3-5. However, springs 106 of the Gellert apparatus do not serve such a sealing function between the seal and the manifold, as they are used to bias nozzle 10 into mold gate 40 between shots.

Accordingly, independent claims 1, 13 and 19 are patentable over the Gellert '062 patent, as are claims 2-4 and 6-10 that depend from and add further features to claim 1 and claims 14 and 15 that depend from and add further features to claim 13. While it is not necessary to address the Examiner's rejection of the dependent claims at this time, Applicants reserve the right to support their patentability, when necessary.

Claims 1-15, 18 and 19 are rejected under 35 U.S.C. § 102(b) as being anticipated by the Schad '945 patent. As discussed above, with reference to FIGS. 2 and 3 of the Schad '945 patent, the Examiner identified support assembly 32 as a seal having a seal melt channel between the melt channels of the nozzle [item 58] and the manifold [item 38]. Office Action, pp. 5 and 7. However, support assembly 32 is not a seal with a seal melt channel but instead is comprised of inner tubular element 54 that is relatively movable with respect to outer cup-shaped element 55, wherein the inner tubular element 54 is a flange or collar portion of a conventional nozzle 58. Schad '945 patent, col. 2, lines 44-46; col. 3, lines 1-9; FIGS. 1-3. As there is no seal with a seal melt channel between the melt channels of nozzle [item 58] and manifold [item 38] of the apparatus of the Schad '945 patent, this reference does not anticipate the present claims. *See* Schad '945 patent, FIG. 2.

Accordingly, independent claims 1, 13 and 19 are patentable over the Schad '945 patent, as are claims 2-12 that depend from and add further features to claim 1 and claims 14 and 15 that depend from and add further features to claim 13. While it is not necessary to address the Examiner's rejection of the dependent claims at this time, Applicants reserve the right to support their patentability, when necessary.

#### *New Claims 20-22*

Support for new claims 20 and 21 may be found throughout the specification, and particularly in paragraph [0021]. Support for new claim 22 may be found throughout the specification, and particularly in paragraph [0031]. The new claims introduce no new matter and their entry is respectfully requested. Each of claims 20-22 are patentable

over the cited references discussed above for at least the reason that neither of the references teaches or suggests the recited seals and biasing elements.

***Supplemental Information Disclosure Statement Filed Herewith***

Applicant files herewith a Second Supplemental Information Disclosure Statement for the Examiner's consideration. A fee in accordance with 37 C.F.R. §1.17(p) is also submitted herewith.

***Conclusion***

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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Date: August 22, 2006

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